

LPC# 0316315295--Cook County
Century Smelting & Refining Co.
SF/HRS
ILP000510174
Volume 1 of 2

CERCLA

Pre-Cerclis Screening Action

US EPA RECORDS CENTER REGION 5



402776

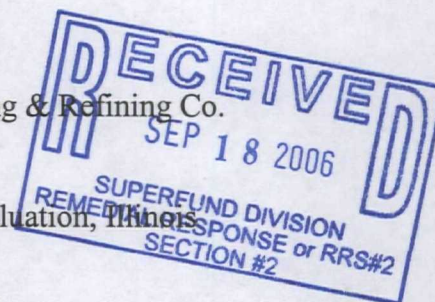


Illinois Environmental
Protection Agency

SIGNATURE PAGE

Title: Pre-CERCLIS Screening Action for Century Smelting & Refining Co.

Preparer: James M. Salch, Project Manager, Office of Site Evaluation, Illinois
Environmental Protection Agency



James M. Salch
Signature

09/12/2006
Date

Reviewer: Tom Crause, Office Manager, Office of Site Evaluation, Illinois
Environmental Protection Agency

Tom Crause
Signature

9/14/06
Date

Approval: Laura J. Ripley, Environmental Scientist, United States Environmental
Protection Agency, Region 5

Laura J. Ripley
Signature

02/09/2007
Date

NOTE DOCUMENT WAS REVISED BY ILLINOIS EPA on 01/15/2007.
LJRipley

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PRE-CERCLIS SCREENING REPORT

for:

**CENTURY SMELTING & REFINING CO.
CHICAGO, ILLINOIS**

PREPARED BY:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF LAND
DIVISION OF REMEDIATION MANAGEMENT
OFFICE OF SITE EVALUATION

JANUARY 15, 2007

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Appendix – A	-Figure – 1 Site Location Map -Figure – 2 Aerial photo showing site location and surrounding properties (TerraServer-USA).
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SECTION 1.0 INTRODUCTION

On February 22, 2005, the Illinois Environmental Protection Agency's (Illinois EPA's) Office of Site Evaluation was asked by United States Environmental Protection Agency (U.S. EPA) Region V to conduct a Pre-CERCLIS Screening Assessment (PCS) at the past location of the Century Smelting & Refining Co. site in Chicago, Illinois. According to U.S. EPA records, the Century Smelting & Refining Co. was located at 2135 S. Loomis Street in Cook County. The Latitude and Longitude for the site is 41.853197° N and 87.660889° W. The PCS is performed under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) commonly known as Superfund.

A PCS is a review of information on potential Superfund sites to determine whether the site should be entered into EPA's Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS). If, over the course of the investigation, there is sufficient information to suggest the site is impacting human health or the environment, the site can be placed in CERCLIS and will progress through the Superfund investigative process.

SECTION 2.0 SITE BACKGROUND

The Century Smelting & Refining Co. property was identified by the 2001 Lead Smelting Eckel Report as a historic lead site within the Chicago Metropolitan Area. This report suggests that lead may have been smelted or otherwise processed at this facility. PCS activities included a review of available information, a visual site reconnaissance, a determination of current land use, and to determine whether the subject property poses a potential threat to human health and the environment. No information was available on State or Federal databases using this location or

company name (U.S. Environmental Protection Agency)(Illinois Environmental Protection Agency). No environmental samples were collected during the PCS.

Section 2.1 Site Description

The Century Smelting & Refining Co., was reportedly located at 2135 S. Loomis Street, Cook County, Chicago, Illinois. This address is located just north of the Chicago Sanitary and Ship Canal and W. Cermak Road, between S. Ashland Avenue to the west and S. Halsted Street to the east (Appendix – A, Figure – 1). Currently, this is the location of a small gravel covered parking lot owned by H. Kramer & Co., a secondary brass and bronze smelter (Appendix - B). The gravel parking lot is fenced in and has a locking gate. The H. Kramer & Co. operations take up the majority of the block between W. Cermak Road and West 21st Street, and between S. Loomis Street and S. Throop Street (Appendix – 1, Figure – 2). The H. Kramer & Co. facility produces ingots of brass and bronze from the recycling of radiators from cars and trucks. The H. Kramer & Co. facility has been in operation at this location since at least the late 1940s.

A brick building located south of the parking lot formerly occupied by Century Smelting & Refining Co. is now used for some type of rubber shredding operation. Historic records indicate that this building was also the location of the Chicago Sanitary Rag Co. (Appendix - C). This portion of the block is not operated as part of the H. Kramer & Co. facility.

The surrounding area south of West 21st Street is primarily used for industrial/commercial purposes. Residential dwellings are present north of West 21st Street. The likelihood of human exposure to contaminated media, if present from the Century Smelting & Refining Co. location, would be restricted to H. Kramer & Co. employees who use the parking lot.

Section 2.2 Site History

Three historical Sanborn Fire Insurance Maps, 1914, 1950 & 1975, were reviewed for evidence that would suggest any metallurgical operations occurred at the 2135 S. Loomis Street address (Appendix - C). In the 1914 Sanborn map, the 2135 S. Loomis Street location was vacant. A building is present, but the building is marked vacant. The structure to the south is occupied by a dealer in rags and old paper. H. Kramer & Co. did not occupy the property immediately north of the 2135 S. Loomis in the 1914 Sanborn. The 1950 Sanborn Map indicated that soft metal smelting took place at the 2135 S. Loomis Street location. The attached building to the south was still in the rag business, and the H. Kramer & Co. is identified as occupying the area to the north. The building located at 2135 S. Loomis is no longer present in the 1975 map.

The Sanborn Maps suggest that smelting operation did historically occur at the 2135 S. Loomis Street location at one time. Any smelting operations that occurred at the 2135 S. Loomis Street location would have been small scale based on the size of the current parking area. Information from the Cook County Assessor's Office and website were used to determine if there was any reference to the Century Smelting & Refining Co. at the 2135 S. Loomis Street address. None of the Assessor office records reviewed by the author showed any listing of the Century Smelting & Refining Co. These records contained primarily individual names, rather than company names.

Three editions of the Standard Metal Directory (1940, 1948-1949, and 1963-1964) were also reviewed to obtain any information about the Century Smelting & Refining Co. located at 2135 S. Loomis Street. The Century Smelting & Refining Co. is referenced at the 2135 S. Loomis Street address in the 1940 edition as a Babbitt & Solder Manufacturer, and a Scrap Iron & Metal Dealer specializing in scrap metal (Standard Metal Directory, 1940). Century Smelting

& Refining Co. is listed again in the 1948 edition as a Babbitt & Solder Manufacturer, and as a Scrap Iron & Metal Dealer (Standard Metal Directory, 1948-1949). There is no mention of the Century Smelting & Refining Co. in the 1963 edition.

At the request of a local citizens group, the Illinois EPA's Office of Site Evaluation performed a limited investigation of the H. Kramer & Co. site in June 2005. This limited investigation did not include the former Century Smelting & Refining Co. property, the subject of this report; however, soil samples were collected on the 2135 S. Loomis parcel on January 10, 2006 (CRA, July 2006). The H. Kramer & Co. facility has been enrolled in the Illinois EPA's Site Remediation Program since September 19, 2005.

SECTION 3.0 FIELD INVESTIGATION ACTIVITIES

Section 3.1 Field Inspection

Field inspection activities for this PCS were limited to a visual site reconnaissance of the property and surrounding area conducted on June 8, 2005. Section 2.1 of this report contains a description of the property and surrounding area as noted at the time of the visual site reconnaissance.

Section 3.2 Analytical Data

No analytical data was obtained from the subject property at the time of the visual site reconnaissance; however, on January 10, 2006, a consultant (Conestoga-Rovers & Associates) for the H. Kramer & Co. facility performed a limited investigation of the gravel parking lot (CRA, July 6, 2006). Four (4) soil borings were installed to a depth of approximately eight (8)

feet. Ten (10) soil samples were collected from the four (4) soil borings. Samples were analyzed for total lead and Toxicity Characteristic Leaching Procedure (TCLP) lead.

Section 3.3 Past Environmental Investigations

On January 10, 2006, a consultant (Conestoga-Rovers & Associates) for the H. Kramer & Co. facility performed a limited investigation of the 2135 S. Loomis Street location (CRA, July 6, 2006). During this investigation, four (4) soil borings were installed to a depth of approximately eight (8) feet. Boring refusal and poor sample recovery were noted in the boring logs due to building rubble present in the subsurface material. Ten (10) soil samples were collected from the four (4) soil borings. Samples were analyzed for total lead and TCLP lead. Samples from three (3) of the four (4) boring locations were below the applicable Illinois EPA corrective action objective of 400 mg/kg, and the characteristically hazardous concentration of 5 mg/L. Two soil samples were collected from the boring location closest to the H. Kramer facility at depths of 0.3 – 0.6 feet below ground surface (bgs) and 2.5 – 3.0 feet bgs. Total lead concentrations were 8590 mg/kg and 2140 mg/kg, respectively. Corresponding TCLP concentrations were 181 mg/L and 1.5 mg/L. The H. Kramer & Co. facility has been enrolled in the Illinois EPA's Site Remediation Program since September 19, 2005. The July 2006 Focused Site Investigation Report for the H. Kramer & Co. facility is currently being reviewed by the Illinois EPA Site Remediation Program project manager.

On June 14, 2005, the Illinois EPA conducted an investigation of open unpaved areas of the H. Kramer property and surrounding areas, which did not include the property which is the subject of this report. The June 14, 2005 investigation included field analysis and laboratory analysis of near surface materials. An additional investigation was performed by H. Kramer in

July of 2005 to determine the vertical extent of contamination identified on the H. Kramer property during the Illinois EPA June 14, 2005 investigation. Soil borings were advanced to a maximum depth of 12 feet bgs during the July 2005 investigation. The property which is the focus of this report was not included in the July 2005 investigation.

SECTION 4.0 MIGRATION PATHWAYS

Section 4.1 Ground Water

During the July 2005 investigation performed for H. Kramer, ground water was consistently encountered on site at a depth of approximately six (6) feet bgs CRA, July 2006). No ground water samples were collected during the July 2005 investigation. Based on the lead concentrations observed in soil samples from the 2135 S. Loomis Street property and additional H. Kramer property, there is a potential for contamination of the shallow ground water unit present at the site. In conjunction with the Illinois EPA, the City of Chicago has a ground water ordinance in place that prohibits the use of potable ground water. In addition, public water supply for individuals in the vicinity of the subject property is obtained from Lake Michigan. The 2135 S. Loomis Street property is roughly 2.5 miles from Lake Michigan, and or the surface water intake. Although a release of lead to near surface soils has been documented, the factors referenced above nearly eliminates resident populations from exposure to contaminated ground water potentially associated with the release. Therefore the ground water pathway is incomplete and poses a minimal threat to human targets.

Section 4.2 Surface Water

The nearest surface water body to the Century Smelting & Refining Co. property is a north-south slip of the Chicago Sanitary and Ship Canal located just south of West Cermak Road, roughly 850 feet from the site. Runoff from the former Century Smelting & Refining Co. property and surrounding areas is controlled by the City of Chicago storm water collection system. Because drainage from the subject property and surrounding properties is controlled by a storm water collection system, the overland flow segment of the surface water pathway, and the probable point of entry (PPE) to the Chicago Sanitary and Ship Canal can not be established. Should lead contamination be identified in the Chicago Sanitary and Ship Canal, attribution from the subject property would be difficult to establish due to the lack of an overland flow segment and an infinite number of potential sources located along the Chicago Sanitary and Ship Canal. Although a release of lead to the near surface soils has been documented, the surface water pathway via overland flow is incomplete.

The inherent immobility of lead contamination reduces the potential for contamination of the nearest surface water body through migration of ground water. There are no drinking water surface intakes located in the Chicago Sanitary and Ship Canal. The nearest drinking water surface intakes to the subject property are located in Lake Michigan at a minimum of 2.5 miles from the subject property. The flow patterns of the Chicago Sanitary and Ship Canal are inconsistent and may flow both towards and away from Lake Michigan. This information in addition to an infinite number of potential sources along the Chicago Sanitary and Ship Canal would again make it difficult to attribute contamination of the surface water pathway to the subject property.

Although a release to near surface soil has been documented at the Century Smelting & Refining Co. property, the surface water pathway via overland flow and migration of ground water does not appear to be complete. In addition, a lack of sensitive environments along the Chicago Sanitary and Ship Canal minimizes the threat to the environment via the surface water pathway. Since the information presented above demonstrates the surface water migration pathway is incomplete, the threat to human targets via the human food chain portion of the surface water pathway is minimal.

Section 4.3 Soil Exposure

Due to historical documentation of lead smelting operations occurring at the subject property, and that lead contamination was identified by chemical analysis, observed release criteria has been met for the soil exposure pathway. Exposure to contaminated soil at the subject property is currently limited due to the fact that a fence is in place around the identified area of contamination that is used for employee parking only. Exposure to contaminated soil is limited to a worker population and nearby population. The nearby population consists of approximately 18,000 people who live within a one mile radius of the site (U.S. Census Bureau, 2003). The H. Kramer facility employs roughly 125 people and has three work shifts per day. The actual area of contamination has not been fully defined; however, only one of the four soil boring locations contained lead above the Illinois EPA residential and industrial commercial corrective action objective of 400 mg/kg. Additional sampling on contiguous H. Kramer property beyond the fenced in parking area has also identified lead contamination above 400 mg/kg.

Contaminated soil was identified beneath approximately three tenths of a foot of compacted gravel at one location in the fenced in parking area. The compacted gravel layer does

provide a limited barrier between the contamination and human contact. Access to the contaminated area by the nearby population is limited by a security fence. The release to soil poses the greatest risk to the worker population; however, the H. Kramer Company is enrolled in the Illinois EPA's Voluntary Site Remediation Program. If new information becomes available which indicates that the area of contamination is more widespread, a re-evaluation of the subject property may be warranted.

Section 4.4 Air Route

No air samples were collected as part of the PCS, nor were observed release criteria met for this pathway. Although the subject property is void of vegetation, roughly one third of a foot of gravel overlies the contaminated material. The likelihood of air borne particulate contamination through wind generation alone would be limited to the worker population and the nearby population. Based on the limited population, the limited gravel cover and no indication of any blowing dust or soil, a release to the air is not suspected.

SECTION 5.0 SUMMARY AND CONCLUSIONS

The Century Smelting & Refining Co. property was identified by the 2001 Lead Smelting Eckel Report as a historic lead site within the Chicago Metropolitan Area. The 1950 Sanborn Fire Insurance Map indicates that some type of soft metal smelting occurred at the 2135 S. Loomis Street location. Judging from the size of the location, it does not appear that a large scale operation would have existed. Currently, there are no remnants of any former buildings at the 2135 S. Loomis Street location. It is unknown what type of surficial modification may have taken place prior to its current condition. Currently, the 2135 S. Loomis Street location consists

of a small fenced in gravel parking lot that is owned by a company identified as H. Kramer & Co. H. Kramer & Co. is a brass ingot foundry that occupies the majority of the block between West Cermak Road, West 21st Street, South Throop Street, and South Loomis Street.

An investigation of the 2135 S. Loomis Street location was performed for H. Kramer & Co. in July of 2005 as part of a larger investigation of the H. Kramer & Co. property. Lead contamination was identified in shallow near surface soil on a portion of the subject property in excess of applicable Illinois EPA ingestion corrective action objectives. Lead concentrations were also determined to be characteristically hazardous. Elevated lead concentrations were also identified on the contiguous property owned by H. Kramer & Co. It is unclear whether the lead contamination is a result of the Century Smelting & Refining Co. operations.

Four contaminant migration pathways including the ground water migration pathway, the surface water migration pathway, the soil exposure pathway, and the air migration pathway were evaluated in this PCS. Although a release to shallow near surface soil was identified, the threat to human and environmental targets via the ground water migration pathway, the surface water exposure pathway, and the air migration pathway are limited at best. The greatest threat appears to be via the soil exposure pathway to nearby populations, and worker populations. The threat to the nearby population is minimal since the subject property is surrounded by a security fence, and the contaminated soil is overlain by roughly three tenths of a foot of compacted gravel. The worker population threat is minimized by the fact that exposure frequencies are low based on the limited use of the subject property. The H. Kramer & Co. property, which includes the former Century Smelting & Refining Co., has enrolled in the Illinois EPA's Site Remediation Program.

SECTION 6.0 REFERENCES

Cook County Assessor's Office, <http://www.cookcountyassessor.com/filings/gis.asp>

Illinois Environmental Protection Agency, <http://www.epa.state.il.us>

U.S. Environmental Protection Agency, <http://www.epa.gov/superfund/sites/cursites/index.htm>

Standard Metal Directory, Eighth Edition 1940, Atlas Publishing Company, 150 Lafayette St., New York, Copyright 1939.

Standard Metal Directory, Eleventh Edition 1948, Bardeen Press, Inc., Atlas Publishing Co., Copyright 1948.

Standard Metal Directory, 1963-1964 Volume XVIII, by Geoffrey J. Nightingale, Copyright 1963, by Standard Metal Directory 525 W. 42nd Street, New York 36, N.Y.

TerraServer-USA, <http://terraserver-usa.com/default.aspx>

CRA (Conestoga-Rovers & Associates) Focused Site Investigation Report, July 2006, Reference No. 039826 (2).

Bureau of the Census, http://factfinder.census.gov/servlet/GCTTable?_ts=73491891765, 6/12/2003.

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Site Location: 2135 S. Loomis St., Chicago, IL 60608 -4417 Cook County 4th Congressional District *later*
abolished

Latitude: 41.853197° N **Longitude:** 87.660889° W

Complete the following checklist. If Ayes is marked, please explain below.		YES	NO
1.	Does the site already appear in CERCLIS?		✓
2.	Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures?		✓
3.	Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?		✓
4.	Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?		✓
5.	Is some other program actively involved with the site (Federal, VCP, State, or Tribal)?	✓	
6.	Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?		✓
7.	Are the hazardous substances potentially released at the site excluded by policy considerations (i.e, deferred to RCRA Corrective Action, FIFRA, or Brownfields)?		✓
8.	Is there insufficient data (provided by the State) to verify that a release has occurred or has the potential to occur (i.e., based on potentially unreliable sources or with no information to support the presence of hazardous substances or CERCLA eligible pollutants and contaminants)?		✓
9.	Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (i.e., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, previous HRS score determined, EPA approved risk assessment completed)?		✓

Current owner of the property (H. Kramer & Co.) is enrolled in the Illinois EPA Site Remediation Program. The H. Kramer Co. owns a large section of property which includes the smaller property known as 2135 S. Loomis St.

Site Determination:

Yes Enter the site into CERCLIS. Further assessment is recommended (explain below).

☒ No

The site is not recommended for placement into CERCLIS (explain below).

DECISION/DISCUSSION/RATIONALE:

Historical information indicates that metal smelting operations may have occurred at the property known as 2135 S. Loomis St. in Chicago, IL. This property is currently a fenced in gravel covered parking lot owned by the H. Kramer company a brass ingot foundry that occupies the majority of the City block that encompasses the former Century Smelting & Refining Co. site. Elevated lead concentrations have been identified at one boring location in the subsurface material that may warrant additional investigation and or remediation; however, the H. Kramer facility, including the gravel parking lot formerly occupied by the Century Smelting & Refining Co., is currently enrolled and under the regulation of the Illinois EPA's Site Remediation Program. Access to the contaminated area is also restricted to H. Kramer employees, since the parking lot is protected by a fence and locking gate. Based on boring log information, the contaminated material underlies three tenths of a foot of compacted gravel, which provides at least a minimal barrier against exposure. As the site was found not to score greater than 28.5 using the Hazardous Ranking System (HRS), it is not eligible for further evaluation by Superfund. This site currently does not warrant a re-evaluation unless there is additional information indicating that a number of the nearby residences are directly impacted by the contaminants found at the site.

Regional EPA Reviewer:LAUREN J. RIPLEY / *Lauren J. Ripley*
Print Name/Signature02/09/2007
Date**State Agency/Tribe:**James M. Saleh / *James M. Saleh*
Print Name/Signature1/15/07
Date

APPENDIX - A

Figure - 1
2135 S. Loomis Street

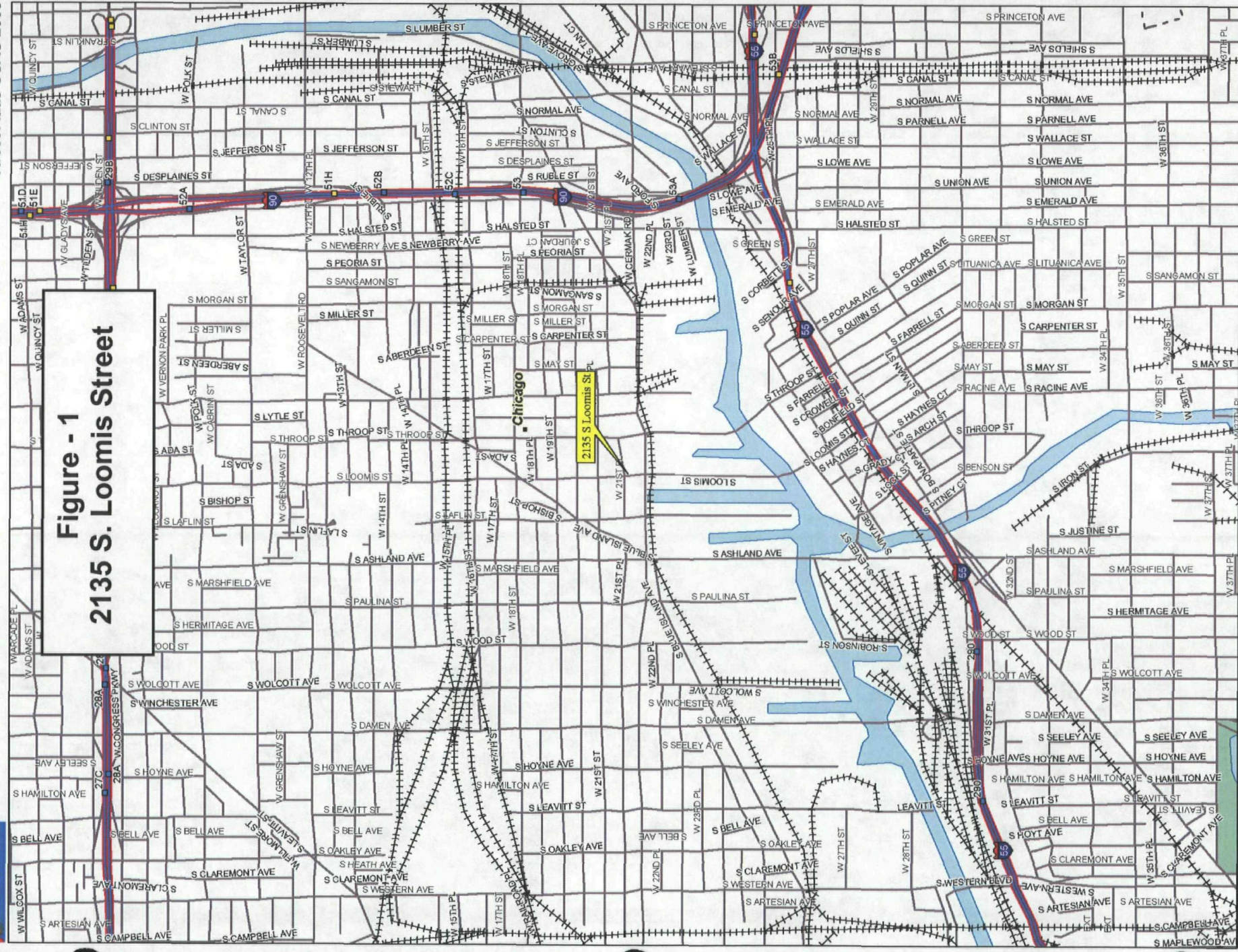




Figure - 2
Aerial Photo of 2135 S. Loomis Street

APPENDIX – B

Photo - 24
Century Smelting & Refining Co.
2135 S. Loomis Street
June 8, 2005

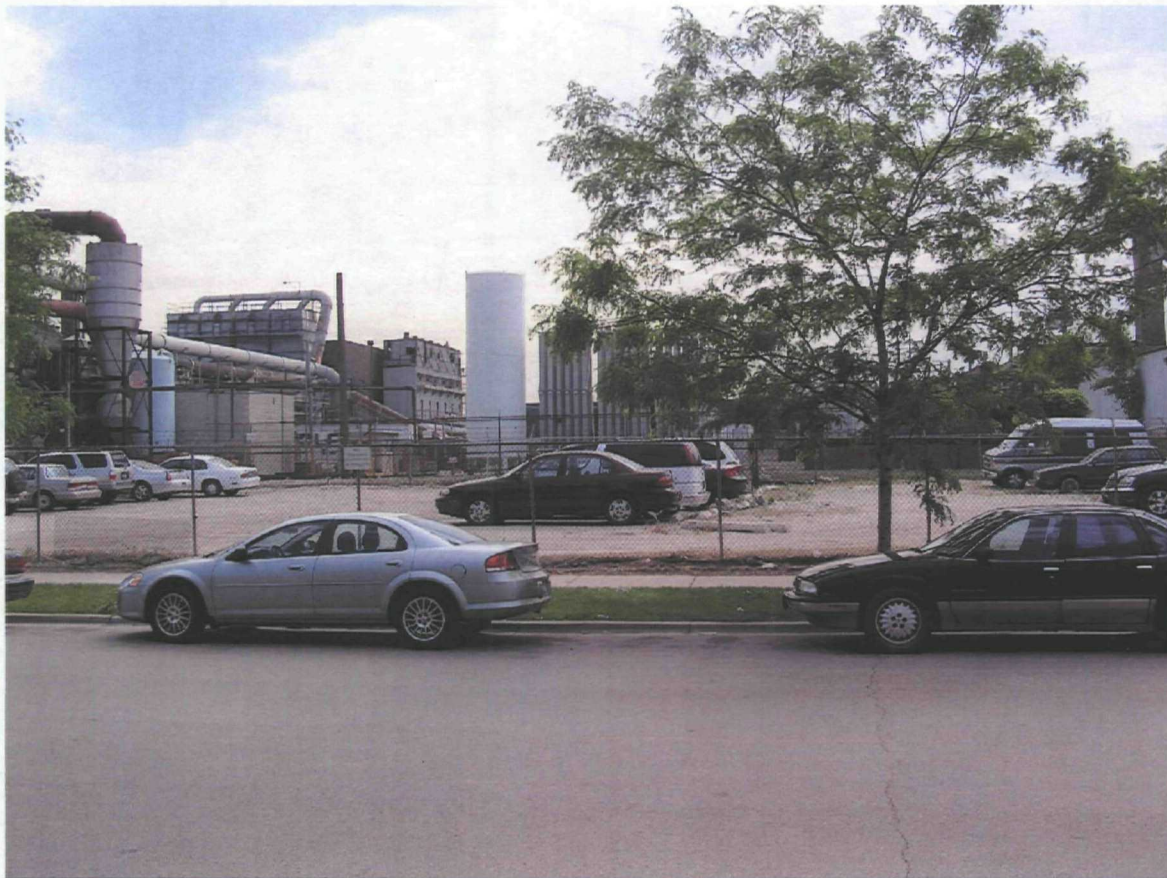


Photo - 25
Century Smelting & Refining Co.
2135 S. Loomis Street
June 8, 2005



Photo of building located just south of 2135 S. Loomis location.

Photo - 26
Century Smelting & Refining Co.
2135 S. Loomis Street
June 8, 2005



Photo looking north along Loomis Street. H. Kramer & Co. building.

Photo - 27
Century Smelting & Refining Co.
2135 S. Loomis Street
June 8, 2005

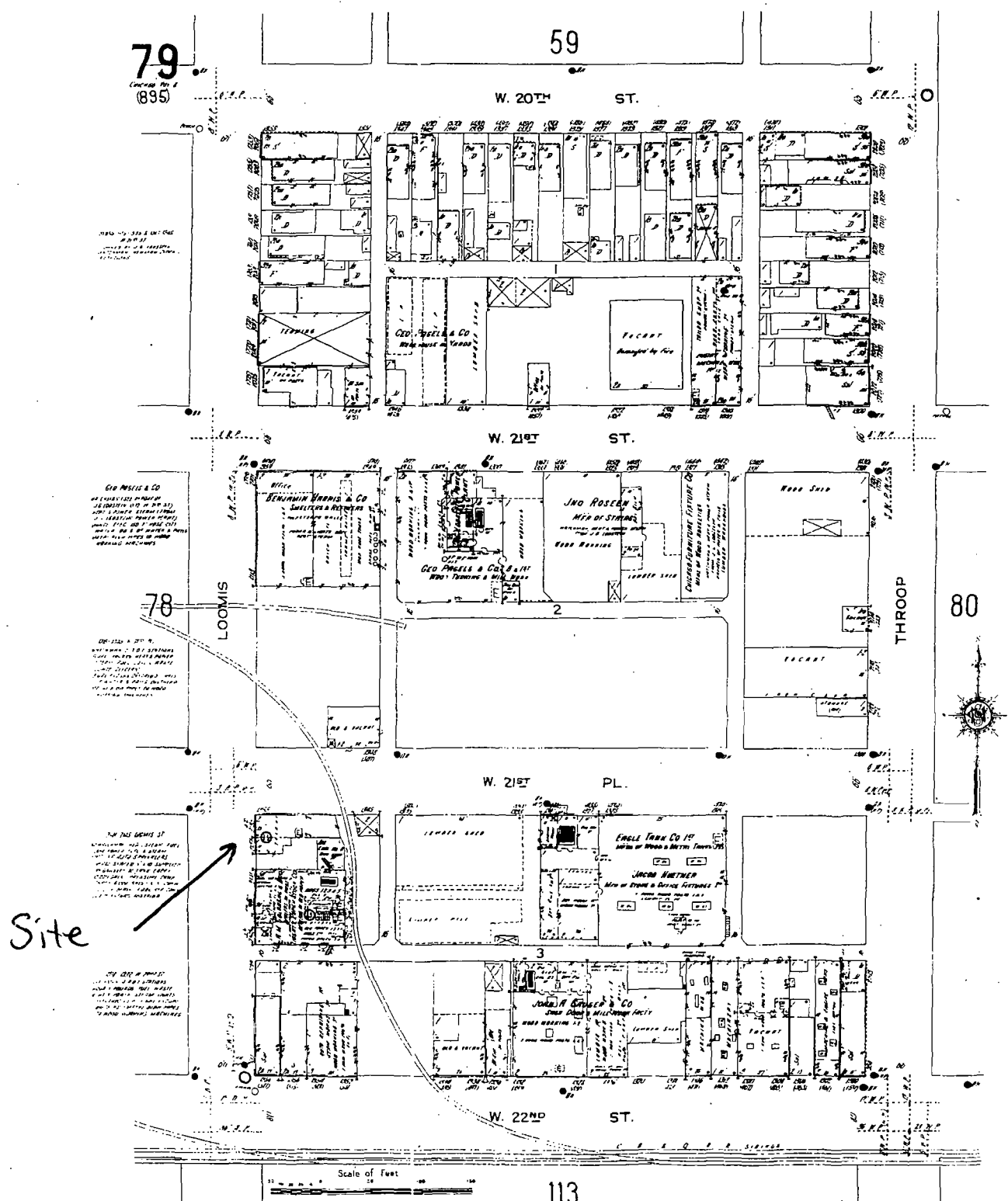


Photo looking northwest from 2135 S. Loomis Street.

Photo - 28
Century Smelting & Refining Co.
2135 S. Loomis Street
June 8, 2005



APPENDIX – C



1950

79.
Chapter 101
(895)

W. CULLERTON
(W. 20TH ST.)

79

W. 21ST ST.

78

LOOMIS

80

THROOP

W. 21ST PL.

W GERMAK RD (W. 22ND ST.)

113

Scale of feet.

Site

1975

2025

21ST ST

1348

16

1346

21ST ST

1338

5 ST

1332

W 21ST ST

1324

NO WATCHMAN CENT. STA. SERV.

1318

1316

1314

1308

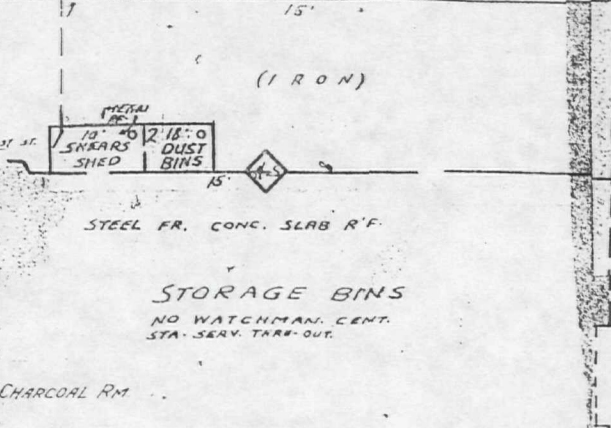
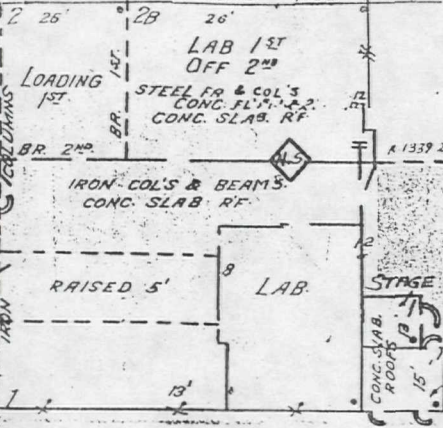
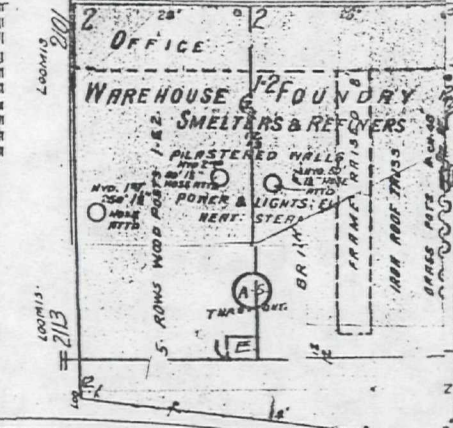
ROOM

W 21ST ST

W. 21ST

ST.

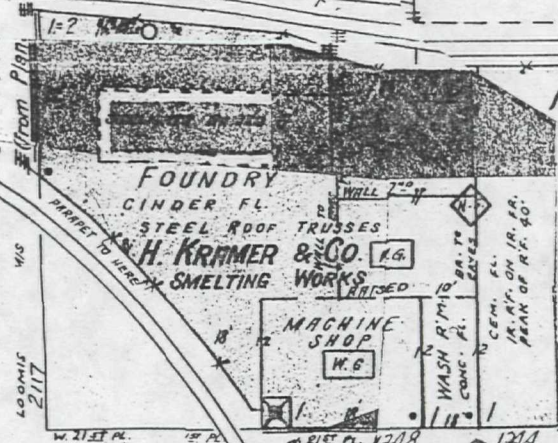
H. KRAMER & CO.
1359 SMELTING WORKS



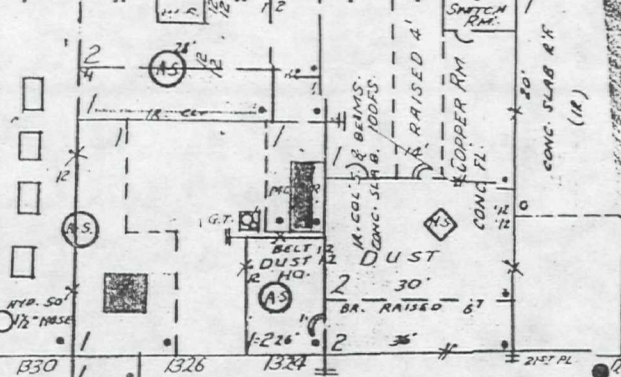
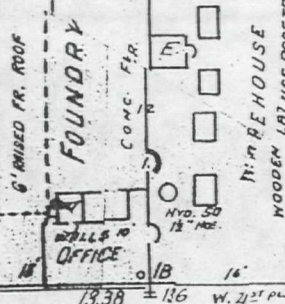
COMMONWEALTH
EDISON CO.

U
(IRON)

LOOMIS



H. KRAMER & CO.
SMELTING WORKS



W. 21ST

PL.

1359 W. 21ST PL.

1349

Site

AS
LIED